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ABSTRACT

This symposium contains a report of a study which (1) examined the relationship between Malaysian children's perception of control and their academic achievement, by Maznah Ismail and Choo Piang Foong, and two abstracts of studies which (2) investigated achievement motivation and attribution of success in rural and urban Malaysian ethnic groups, by Wan Rafaei Abdul Rahman, and (3) studied the development pattern of Indian males' achievement motive in relation to prolonged deprivation, by Ashta Nand Tiwari. In the former study of Malaysian children, findings of correlational analyses generally supported previous studies revealing that students scoring as "high internals" tended to perform better academically than those scoring as "low internals." Also, girls exceeded boys on both I+ and I- which suggested that, more so than boys, girls in Malaysian culture are socialized to feel responsible for their success as well as for their failure. Higher school marks obtained by the girls appeared to be related to their greater sense of responsibility for the outcome of their performance. The study of Malaysian ethnic groups found that the Chinese had higher achievement motivation than the Malays, urban Malays had higher achievement motivation than their rural counterparts, and urban Malays had higher scores on ability and effort than the Chinese, who, in contrast to Malays and Indians, were cautious in their attribution of success to ability and luck. The study of 150 economically deprived Indian males from the eastern part of Uttar Pradesh revealed a clear developmental trend showing a consistent increase in mean scores of the developmental trend of achievement motive (n-Ach) with age levels and different deprivation groups. Age and deprivation jointly determined the level of achievement motive. (RH)

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# Symposium III

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## SYMPOSIUM III A : Achievement and Its Correlates

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# Children's Perception of Control and Academic Achievement

*Maznah Ismail and Choo Piang Foong*

## INTRODUCTION

As academic success continues to play a major role in a person's economic and social mobility, the search for factors to explain individual differences in academic performance will continue to attract the interest of both the psychologists as well as the educators. An area that has generated considerable research activities concerns the relationship between a person's perceived control of events and academic performance. Rotter (1966) in studying children's perception of causality states that a person with internal locus of control is inclined to believe that he has control over events that occur in his life, whereas a person with external locus of control believes that rewards and punishments are not contingent upon his behaviour. Therefore, as suggested by the social learning theorists, a person with internal locus of control is inclined to be more industrious and successful as opposed to those with external locus of control who tend to be dormant and less successful.

Studies using internal beliefs as a variable in intellectual-academic performance have produced consistent evidence associating internality with high achievement. For example, Crandall, Katkovsky and Preston (1962) found that internality was related to the amount of time boys spent in intellectual activities during free play and the intensity with which they pursued these activities. No such relationships were found for girls. Chance (1965), using pupils from third to fifth grades, found that high internal boys and girls obtained higher scores in reading, arithmetic and

spelling. A study by McGhee and Crandall (1968) showed that high internal subjects consistently obtained higher scores in reading, mathematics and language than low internals. However, for the girls, internal beliefs for success and failure could predict equally well their academic performance whereas for the boys, their internal beliefs for failure were associated with their academic achievement rather than their internal beliefs for success. Messer (1972), using fourth-grade boys and girls, also found that the internals had higher school grades than the externals. However, Messer (1972) found that internal beliefs for failure provided better prediction for girls performance while internal beliefs for success provided better prediction for boys, their internal beliefs for failure being associated more with their academic achievement than their internal beliefs for success. Messer (1972), using fourth-grade boys and girls, also found that the internals had higher school grades than the externals. However, Messer (1972) found that internal beliefs for failure provided better prediction for girls' performance while internal beliefs for success provided better prediction for boys' performance.

A British validation study by Reid and Croucher (1980) provided further evidence of superior attainment on arithmetic and vocabulary of high internal subjects. The evidence provided by these studies appear to indicate that individual differences in internal beliefs could be a useful variable to explain variation in academic performance. In Malaysia, the area on locus of control and its relationship to academic performance has not received much research interest. The present study attempts to examine this relationship in the context of the Malaysian situation.

Several instruments have been devised to measure the locus of control. One of these is the Crandall Intellectual Achievement Responsibility Questionnaire (IAR), (Crandall, Katkovsky and Crandall, 1965). This instrument was designed for school-aged children, and it purports to assess their perception of the causality for events that occur in academic and intellectual situations. The internal forces are confined to the child while the external forces encompasses only people who have daily face-to-face contact with the child such as the parents and the teachers. The scale consists of 34 forced-choice items equally divided into positive and negative statements of events in academic achievement situations. The I+ subscore is based on the summation of a child's responses to the positive statements while the I– subscore is based on the summation of their responses to the negative statements. His total score ($I_{total}$) is the sum of his I+ and I– subscores. In the present study, the Crandall IAR was used to measure the pupils' sense of responsibility for their academic success and failure.

## METHOD

### *Sample*

The sample consisted of 729 standard three pupils, 406 of whom were boys and 323 were girls. All of them were attending schools in the rural areas.

### *Instrument*

The Crandall IAR was translated into the national language by the research officers of the University of Science Malaysia research project teams and one of the authors of this paper. The translated version was tried out on a group of standard three pupils, and the necessary modifications were made to ensure that the children understood the questions in the scale.

### *Procedure*

The IAR was administered to the sample in small groups by the research officers of the project. In order to minimise variability in presentation, the questions were taped and administered in this fashion. The pupils were also given printed version of the scale from which they could follow the recorded presentation and then record their own responses. Using a group of 100 pupils, the scale was administered to them after a period of a week in order to obtain estimates of the test-retest reliability for I+, I– and for male and females students.

The achievement scores for the National Language, English, Arithmetic and Science were obtained from a group within the sample (N = 665) and these scores were correlated with the pupils' scores on the IAR.

## RESULTS AND DISCUSSION

### *Means and Standard Deviations of IAR Scores*

Tabel 1 shows the means and standard deviations of the IAR scores for boys, girls and the total sample. The results are comparable to those obtained by Crandall and others for their grade three sample. The trend found in Crandall's study in which the girls tended to score higher than the

**Table 1**
**Means and Standard Deviation of IAR Scores**

| Subjects | N | Itotal | | I+ | | I– | |
|---|---|---|---|---|---|---|---|
| | | Means | SD | Means | SD | Means | SD |
| All | 729 | 21.54 | 4.09 | 11.27 | 2.39 | 10.28 | 2.54 |
| Males | 406 | 21.18 | 4.09 | 10.99 | 2.39 | 10.19 | 2.53 |
| Females | 323 | 22.03** | 4.05 | 11.61* | 2.33 | 10.39 | 2.56 |

* $p < 0.05$
** $p < 0.01$

boys on I+ was also found in the present study. Table 1 shows that the girls' score for I+ is significantly higher than the boys. However, the tendency for the boys to score higher than the girls on I–, as identified in Crandall's study, was not found in the present study. In the present study, boys scored lower than girls on I– although the difference was not significant.

Split-half reliabilities were computed separately for I+ and I– subscores. The correlations obtained were 43 and 47 for I–. The correlations were somewhat lower than those obtained by Crandall *et al.* (1965) from a group consisting of third, fourth and fifth graders (N = 130).

The correlation between I+ and I– was .39. This figure was higher than that obtained for the younger sample in the Crandall's study but it was identical with that obtained for their sixth grade children. The somewhat higher association of the subscale scores of the Malaysian sample suggests that irrespective of the outcome of their efforts, the Malaysian children appeared to generalise their beliefs about assuming responsibility for successful academic experiences to their beliefs about assuming responsibility for failure experiences.

Table 2 shows the estimates of test-retest reliability for the total sample and male and female pupils. While the reliabilities for the total sample for I+ and I– were lower than those obtained by Crandall (Crandall, et. *al.*, 1965) for their younger sample, the reliability for Itotal was comparable to that obtained by Crandall. Table 2 also reveals sex difference in that reliabilities for Itotal, I+ and I– for girls tended to be higher than those obtained for boys ($p < 0.01$).

**Table 2**
**Estimates of Test - Retest Reliability**

| Internal Belief | Total Sample (N = 100) | Males (N = 59) | Females (N = 4) |
|---|---|---|---|
| $I_{total}$ | .61 (.69) | .56 | .61 |
| I+ | .47 (.66) | .42 | .57 |
| I– | .48 (.74) | .39 | .63 |

Note. Figures in parentheses are those reported by Crandall *et. al.* (1965).

*Correlations between IAR Scores and Academic Performance*

It was possible to obtain the test marks of 665 of the pupils who completed the IAR. The total test marks computed for the National Language, the English Language, Arithmetic and Science was correlated with IAR scores. As shown in Table 3, the correlations obtained for the total sample were .52 with Itotal, .49 with I+ and .38 with I–.

Table 3
Correlations between IAR Scores and Academic Performance

| Subjects | N | Itotal | I+ | I– |
|---|---|---|---|---|
| All | 665 | .52 | .49 | .38 |
| Males | 361 | .49 | .49 | .35 |
| Females | 304 | .54 | .47 | .42 |

Note. All correlations are statistically significant ($p < 0.001$).

These results appear to be in agreement with those of Crandall *et. al.* (1965) which reported significant positive correlation between Itotal scores and various achievement test scores and report-card grades for grade 3. The results of the present study are also in line with those found by Reid and Crouchers (1980) who also noted that while both I+ and I– appeared to be valid predictors of attainment, I+ had higher correlation than I– with attainment.

*Relationship between IAR Subscores and School Subjects*

Using the median scores, the sample was split into high and low groups for Itotal, I+, and I–. These groups' academic performance was compared in terms of their marks for the National Language, the English Language, Arithmetic, Science and the total aggregate.

As shown in Table 4, girls performed better than boys across the four school subjects ($p < 0.01$). Furthermore, for both sexes, high internals consistently scored better than low internals ($p < 0.01$). The latter findings provide support for other data on the relationship between IAR scores and academic performance (e.g. McGhee and Crandall, 1968; Chance, 1955 Messer, 1972 and Romanis, 1973).

The results of the analyses of variance with IAR subscores and sex as independent variables and the marks for the four school subjects as the dependent variables show that for all the school marks and sex, IAR subscores emerge as the significant main effects ($p < 0.01$).

Except for the National Language marks ($p < 0.05$), there was no sex difference by IAR subscores interaction effects for the other three school marks.

## CONCLUSION

The findings of the present study generally support the data from otner studies which revealed that high internals tended to perform better academically than low internals (Crandall *et. al.*, 1965; Read and Croucher, 1980). A variation found in the present study was that girls exceeded boys on both I+ and I– which suggested that the girls more so than the boys in the Malaysian culture are socialised to feel responsible for their success as well as for their failure. The higher school marks obtained by the girls

Table 4

Mean Achievement Scores for High and Low Internal Subjects by Sex

| Internal Belief | Level | National Language | | English | | Arithmetic | | Science | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M | F | M | F | M | F | M | F | M | F |
| $I_{total}$ | Hi | 77.35 | 84.79 | 45.94 | 50.31 | 62.31 | 67.77 | 65.01 | 70.35 | 250.61 | 273.21 |
| | Lo | 56.50 | 71.43 | 36.16 | 41.72 | 45.72 | 52.34 | 48.62 | 56.74 | 187.24 | 222.23 |
| I+ | Hi | 76.36 | 84.25 | 46.05 | 51.07 | 62.76 | 67.08 | 63.50 | 69.66 | 248.67 | 272.06 |
| | Lo | 58.67 | 73.07 | 36.68 | 41.61 | 46.59 | 54.32 | 50.97 | 58.57 | 192.91 | 227.58 |
| I- | Hi | 75.49 | 85.03 | 45.11 | 50.78 | 60.40 | 67.08 | 64.27 | 70.65 | 245.26 | 237.54 |
| | Lo | 58.92 | 72.34 | 37.26 | 41.98 | 48.28 | 54.40 | 49.85 | 57.62 | 194.32 | 226.34 |

Note. All pairwise comparisons are statistically significant ($p < 0.001$).

appear to be related to their greater sense of responsibility for the outcome of their performance. The results also suggest the usefulness of considering reinforcement of responsibility as a factor in the management of the learning process in the classroom.

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# Achievement Motivation and Attribution of Success in Rural and Urban Malaysian Ethnic Groups **

*Wan Rafaei Abdul Rahman*

The paper reported a study on achievement motivation (McClelland approach) and attribution of success (Weiner's approach) in rural and urban Malaysian ethnic groups.

The sample included 450 school children comprising 180 Malays, 137 Chinese and 133 Indians from rural and urban schools, aged between 11–15 years old. Thematic aperception tests as well as a questionnaire, designed to measure attribution of success, were administered to the sample.

It would appear that the Chinese had higher achievement motivation than the Malays. This was consistent with McClelland's theory that the more enterprising group was the more achievement motivated. The higher achievement motivation of the Chinese was attributed to the higher motivation scores of the urban Chinese.

The fact that urban Malays had higher achievement motivation than their rural counterparts was understandable as most of the economic activities take place in the urban areas. The rural-urban migration also resulted in an accumulation of more achievement motivated individuals in the urban centres.

The results showed the urban Malays had higher scores on ability and effort than the Chinese. This was not consistent with Weiner's contention that those high in achievement motivation (TAT) attributed success more to ability and effort. The Chinese would be expected to score higher on ability and effort. The high scores on ability and effort of the Malays were attributed to the high scores of the rural subjects.

This result might reflect the more optimistic disposition of the Malays with respect to the opportunities that were made available to them. However, taking the subjects as a whole, the Malays who were high on achievement motivation (TAT) attributed success more to ability and luck than those who were low in achievement motivation. This suggested that there was some evidence to support Weiner's contention.

The results showed that the Chinese were highly achievement motivated but cautious in their attribution of success to ability and luck. The Malays were not as highly achievement motivated as the Chinese but they were very optimistic in their attribution of success to ability and effort. The Indians were low in achievement motivation and cautious in their attribution of success to ability and luck.

There appeared to be some support for the McClelland's approach as the TAT scores depicted the general picture prevalent among the Malays. More work needs to be done especially with the measure in the case of the Weiner's approach.

An implication from this study was that it might be possible to train those low in achievement motivation so that they could be motivated to become successful entrepreneurs.

# The Development Pattern of Achievement Motive in Relation to Prolonged Deprivation **

*Ashta Nand Tiwari*

The present paper reports results of an empirical study related to psychological consequences of living under impoverished conditions in a natural life setting. In view of the fact that the majority of the Indian population is below the poverty line, it appears that a comprehensive analysis of the psychological characteristics of a sample of the population is a prerequisite for any meaningful attempt at changing the level of economic development and quality of life of the people. Unfortunately, realisation of these issues have been delayed due to over concern with problems of research originating in other countries. However, in the last decade, considerable rethinking has been made by some psychologists about these problems.

In this connection, the present paper is based upon a systematic and empirical study of a related set of phenomena which have attracted the attention of many psychologists as well as scholars of other disciplines such as sociology, anthropology, education and economics. The far-reaching complex ramifications of the impact of deprivation are being increasingly appreciated in social and behavioural sciences. Using prolonged experiential deprivation as a major variable, the researcher has sought to establish its relationship with the growth of achievement motive.

The present study, in a R-R paradigm, attempts at investigating the relationship between an individual's experiental background (deprivation) and age and growth of achievement motivation.

The study was conducted on a sample of 150 males ranging from 7 to 25 years of age drawn from the eastern part of Uttar Pradesh. When the developmental trend of achievement motive (n-Ach) was analysed within

the framework of prolonged deprivation, the results revealed a clear developmental trend showing a consistent increase in mean scores of n-Ach with age levels and different deprivation groups. There was a significant interaction between age and deprivation which jointly determine the level of achievement motive. This means that with increases in age, people become more achievement oriented, establishing that the growth of n-Ach is shaped by the individual's experiential background.